

AMENDMENT

Please amend the application without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

In the Claims

- 1-2. (Cancelled)
3. (Allowed) An isolated antibacterial protein having the amino acid sequence of SEQ ID NO: 3.
4. (Cancelled)
5. (Currently amended) ~~[[A]] The protein as claimed in claim 3, wherein the protein~~
~~any one of claims 1-4 which is bacteriocidal.~~
6. (Currently amended) ~~[[A]] The protein as claimed in claim 5, wherein the protein~~
~~which is bacteriocidal with respect to *Streptococcus pyogenes*.~~
7. (Currently amended) An antibacterial composition comprising the ~~which includes~~
a protein as claimed in claim 3 ~~any one of claims 1 to 6~~ or an organism which ~~can~~ expresses ~~[[a]]~~
the protein as claimed in claim 3 ~~any one of claims 1 to 6.~~
8. (Currently amended) A therapeutic formulation which comprises:
 - (i) ~~[[a]] the protein as claimed in claim 3~~ ~~any one of claims 1-6~~; or
 - (ii) an organism which ~~can~~ expresses ~~[[a]] the protein as claimed in claim 3~~
~~any one of claims 1 to 6,~~in combination with a diluent, carrier and/or excipient.
- 9-10. (Cancelled)
11. (Currently amended) ~~[[A]] The therapeutic formulation as claimed in claim 8, any~~
~~one of claims 8-10 which is an orally administrable medicament.~~
12. (Currently amended) ~~A medicament~~ The therapeutic formulation as claimed in
claim 11, wherein the medicament ~~which is~~ a syrup, mouthwash, gargle, toothpaste or mouth
spray.
13. (Currently amended) ~~A medicament~~ The therapeutic formulation as claimed in
claim 11, wherein the medicament ~~which is~~ in a unit dosage form.

14. (Currently amended) ~~A medicament~~ The therapeutic formulation as claimed in claim 12, ~~wherein the medicament which~~ is a lozenge or capsule ~~containing a unit dose of an organism which can express a protein as claimed in any one of claims 1-6.~~

15. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 8 ~~any one of claims 8-11~~ in which said protein ~~or organism~~ is included in a food or drink.

16. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 15 in which said food or drink is a dairy product based food or drink.

17. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 16 in which said protein ~~or organism~~ is included in milk powder, milk biscuits, milk, yoghurt or cheese.

18. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 16 in which said protein ~~or organism~~ is included in a flavoured milk.

19. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 8, ~~any one of claims 8-10~~ in which said protein ~~or organism~~ is included in a confectionery.

20. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 19 in which said confectionery is a chewing gum.

21. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 8, ~~any one of claims 9-20~~ which further comprises one or more secondary antibacterial agents.

22. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 21 in which said secondary antibacterial agent(s) are selected from bacteriocin-like inhibitory substance(s) (BLIS).

23. (Currently amended) ~~[[A]]~~The therapeutic formulation as claimed in claim 20 which includes one or more ~~both~~ of Salivaricin A, ~~[[an]] a microorganism which can expresses~~ Salivaricin A, ~~the~~ an antibacterial protein which has the amino acid sequence of SEQ ID NO:5, or ~~[[an]] microorganism which can expresses~~ the antibacterial protein which has the amino acid sequence of SEQ ID NO:5.

24-26. (Cancelled)

27. (Currently amended) ~~An~~ A microorganism, in substantially pure form, comprising ~~which includes~~ a polynucleotide which:

a) ~~—~~ encodes ~~[[a]] the protein as claimed in claim 3 any one of claims 1-6;~~

b) ~~—~~ comprises the coding sequence of SEQ ID NO:2; or

~~e) — encodes a protein as claimed in any one of claims 1-6, comprising the DNA sequence which encodes an antibacterial protein as claimed in claim 1, which is part of the genome of *S. salivarius* strain K12, on deposit at Deutsche Sammlung von Mikroorganismen Und Zellkulturen GmbH, Braunschweig, Germany, accession number DSM 13084.~~

28. (Currently amended) ~~[[An]]~~ The organism as claimed in claim 27 in which said polynucleotide is heterologous.

29. (Currently amended) ~~[[An]]~~ The organism as claimed in claim 27 which is a *S. salivarius* organism.

30. (Original) A biologically pure culture of *S. salivarius* strain K12 on deposit at Deutsche Sammlung von Mikroorganismen Und Zellkulturen GmbH, Braunschweig, Germany, accession number DSM 13084.

31. (Original) A biologically pure culture of *S. salivarius* strain K30 on deposit at Deutsche Sammlung von Mikroorganismen Und Zellkulturen GmbH, Braunschweig, Germany, accession number DSM 13085.

32. (Original) A therapeutic formulation which includes *S. salivarius* strain K12 or *S. salivarius* strain K30 as identified in claim 30 or claim 31.

33. (Currently amended) A method of treating an individual to at least inhibit growth of harmful streptococcal bacteria in the upper respiratory tract, comprising the step of administering an effective amount of a protein as claimed in claim 3 ~~any one of claims 1-6~~ orally to said individual.

34-46. (Cancelled)